

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/051320

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C23C28/00 C23C16/26 C23C16/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C23C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 100 18 143 A (BALZERS HOCHVAKUUM) 25 October 2001 (2001-10-25) page 3, paragraph 19-28 page 9, paragraph 95 - page 11, paragraph 110 -----	1,2,5,6, 8-10,12, 13,15
A	US 6 126 793 A (KOIKE RYOTA ET AL) 3 October 2000 (2000-10-03) column 6, lines 1-7,16-22 column 18, line 29 - column 19, line 34 column 20, lines 1-26 column 20, line 53 - column 21, line 16 ----- -/--	1,2,6, 8-10,12



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the International filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the International filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the International search

6 October 2004

Date of mailing of the international search report

15/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Joffreau, P-0

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP2004/051320

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 033 533 A (KOIKE RYOTA ET AL) 7 March 2000 (2000-03-07) column 6, lines 1-7, 16-23 column 18, line 29 - column 19, line 34 column 20, line 53 - column 21, line 16 -----	1, 2, 6, 8-10, 12
A	HUANG R F ET AL: "Wear-resistant multilayered diamond-like carbon coating prepared by pulse biased arc ion plating" DIAMOND AND RELATED MATERIALS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 10, no. 9-10, September 2001 (2001-09), pages 1850-1854, XP004321135 ISSN: 0925-9635 page 1851, paragraph 2 page 1852, paragraph 3; figure 3; table 1 -----	1, 2, 5-12
A	DENG J ET AL: "DLC multilayer coatings for wear protection" DIAMOND AND RELATED MATERIALS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 4, no. 7, 15 May 1995 (1995-05-15), pages 936-943, XP004066766 ISSN: 0925-9635 page 937, paragraph 2; figure 1 page 938, paragraph 4 -----	1, 2, 5-12, 14, 15
A	VOEVODIN A A ET AL: "Design of a Ti/TiC/DLC functionally gradient coating based on studies of structural transitions in Ti-C thin films" THIN SOLID FILMS, ELSEVIER-SEQUOIA S.A. LAUSANNE, CH, vol. 298, no. 1-2, 20 April 1997 (1997-04-20), pages 107-115, XP004125924 ISSN: 0040-6090 page 109; figure 3; table 1 page 110; figures 4, 5 page 113; figure 9 -----	1, 2, 6, 8-10, 15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/051320

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 10018143	A	25-10-2001	DE 10018143 A1	25-10-2001
			AU 2844001 A	30-10-2001
			BR 0017216 A	10-06-2003
			WO 0179585 A1	25-10-2001
			EP 1272683 A1	08-01-2003
			EP 1362931 A1	19-11-2003
			JP 2004501793 T	22-01-2004
			US 2004038033 A1	26-02-2004
			US 6740393 B1	25-05-2004
US 6126793	A	03-10-2000	JP 3304320 B2	22-07-2002
			JP 2000080474 A	21-03-2000
			JP 2997215 B2	11-01-2000
			JP 10081969 A	31-03-1998
			US 6033533 A	07-03-2000
			US 6217952 B1	17-04-2001
US 6033533	A	07-03-2000	JP 3304320 B2	22-07-2002
			JP 2000080474 A	21-03-2000
			JP 2997215 B2	11-01-2000
			JP 10081969 A	31-03-1998
			US 6217952 B1	17-04-2001
			US 6126793 A	03-10-2000